(b) said wave function size depends on the particle energy and the switching between said device two states is done by changing the particle energy.

2. The device of claim 1 wherein one states is indicated by a certain particle wave function size in space and other state is indicated by a bigger particle wave function size in space.

3. The device of claim 1 wherein said wave function size depends on said particle kinetic energy and the switching between the device two states is done by changing said particle kinetic energy.

4. The device of claim 1 compromising:

(a) said device switched between two states by particle potential energy change, for

example electric energy or magnetic energy.

5. The device of claim 1 compromising:

(a) said particle switched between two states by energy receipt from additional particle to said particle.

(b) said particle revert switched state by energy transmitted from said particle to other particle.

6. The device of claim 1 compromising:

(a) said particle switched between two states by said particle photon absorption.

(b) revert switching between said two state achieved by said particle photon emission.

7. The device of claim 1 wherein the switching between the two states is achieved by phonon or phonons energy exchange with the switched particle.

8.The device of claim 1 comprising:

(a) a container contained particle wave function

(b) two charged zones on two sides of said container wherein the said switch particle wave function is detected by corresponded values of the potential between said two charged zones.

9. A method according to claim 1 wherein the determination of the state includes detection of a voltage induced by the expansion of the wave function of the at least one particle

10. The device of claim 1 wherein the change in said states is detected by a corresponding change in voltage on an electrode.

11. The device of claim 1 wherein the determination of the state includes detection of a current induced by expansion of the wave function of the at least one particle.

12. The device of claim 1 wherein the at least one electrode is positioned such that a detectable current is caused to flow in an electrode when the wave function state changes

13. The device of claim 1 compromising :

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(a) a first region contained the particle wave function in the first switched state.

(b) a second region adjacent to said first region contained expended part of said particle wave function at second switched state wherein said second region could be made of different material or structure as well.

14. The switching device of claim 14 further comprising:

(a) a conduction element near said second region for switched state detection.

15. The switching device of claim 14 comprising:

(a) said silicon layer with phosphorus dopants.

(b) said undoped silicon layer

(c) said silicon oxide insulator layer on two sides of said doped silicon layer.

(d) said Aluminum based metallic contact on said insulator layer.

(e) said additional silicon oxide insulator layer.

(f) said Aluminum current conductor on said additional silicon oxide insulator layer.

16. The switching device of claim 1 wherein said two switched particle states are detected by said particle wave function photon detection, photon scattering , photon absorption or photon transmission.

17.The device of claim 1 compromising :

(a) said container of said particle wave function.

(b) said element abutting said container wherein continues change

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of particle wave function caused conduction on conductive element.

18. A switching device of claim 1 comprising:

(a) an electric current element.

(b) screening element close to the charge current element wherein said screening element has a limited region where electric charge in this region influenced said current element .

(c) a particle in a container said that has two states, first state said particle wave function size adjusted only to said screening element . In second state said particle wave function expended to said limited region as well thereby influencing the current value in said electric current element.

(d) said switching between the two particle states is done by any of the method in claims 5-14.

19. A device of claim 1comprising:

a container in which at least one particle is bound, wherein the particle in a first lower energy state is confined to a given region and wherein, in a second higher energy state, the particle is increased in size such that a portion of the at least one particle is outside said region, while remaining bound to said region and determining the state of the at least one particle or the transition of the at least one particle from one of said states to the other.

20. The device of claim 1 compromising.

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(a) an n- Type silicon wafer.

(b) a thin insulator layer on said wafer.

(c) a gate on insulator layer.

(d) source and drain layers on said wafer at opposite sides of said gate.

(e) two insulator layers on gate.

(f) metal contacts on said gate insulator layers and on said source and drain.

21. The device of claim 20 wherein:

(a) said silicon wafer dopants are phosphorus atoms.

(b) said insulator layers is made of silicon oxide

(c) said gate is made of phosphorus dopants.

(d) said source and drain dopants are boron atoms.

(e) said metal contacts are made of Aluminum.

22. A gate compromising:

(a) semiconductor layer with dopants or insulator layer.

(b) insulator regions on layer, a .

(c) charged region on one region or more on said insulator region thereby caused polarization inside the gate thereby gaiting is achieved.

23. The device of claim 1 compromising:

(a) an n- Type silicon wafer.

(b) a thin insulator layer on said wafer.

(c) a gate on insulator layer.

(d) two insulator layers on gate.

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(e) two charged regions adjacent to said gate insulators that create an electric repulsive potential on particles wave functions inside the gate, determined said wave function size and switched state .

(f) source and drain layers on said wafer at opposite sides of said gate.

(g) metal contacts on said source and drain.

24. The device of claim 23 wherein:

(a) said silicon wafer dopants are phosphorus atoms.

(b) said insulator layers are made of silicon oxide

(c) said gate is made of phosphorus dopants.

(d) said source and drain dopants are boron atoms.

(e) said metal contacts are made of Aluminum.

25. said switching device of claim 23 wherein the electric potential on said charged regions are attracted potential or a combination of repelled potential region and attracted potential region.

26. A switching device for switching between two states in computing or on off states comprising:

(a) said two conductive planes for electron detection with minimal deflecting potential on a particle entered the region between two said planes. said two switched states are detected by changes in the electric potential between the two planes

(b) a two regions container.

(c) inside said container switched between two state electron wherein

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